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ORIGINAL COMMUNICATIONS.

THE TEMPERATURE OF THE SEXES; AN INDICATION OF DEVELOPMENT.

BY JOHN STOCKTON-HOUGH, M.D.

SINCE Aristotle declared that man had more warmth than woman, we have had recorded any number of assertions to the contrary, and several proofs corroborative; and yet, as late as 1864, we see the Greek philosopher flatly contradicted by a clever, scholarly naturalist: * so we find some decidedly in favor of one view, others of the opposite opinion, and still others in doubt.

Though we had full confidence in Aristotle's theory and the corroborative evidence of recent skilful observers, yet we felt anxious to test the matter, and the very satisfactory result shown in the accompanying table fully sustains the Aristotelian theory.

Aristotle held that moderation in secretion favors longevity: "this," he says, "is why females live longer than males." † "Males ought by nature to be longer-lived than females, since they have more warmth." ‡ Again, "The male must necessarily be warmer than the female." §

After discussing the different qualities of the blood, and the various parts to which it is supplied, he says, "Hence the upper and lower parts, the right and left sides, the male and female, manifest their differences" [in temperature]. **

Aristotle arrived at these conclusions (deductions) from *philosophical and analogical reasoning*, not having any delicate instrument like the thermometer, while modern investigators rely upon the thermometer almost entirely. His detailed observations and philosophical deductions are without an equal in the history of science since his time, and we are not surprised that Cuvier says that "One sees that on certain points of detail he is a better observer than the majority of his successors."

Dr. John Davy, F.R.S., †† the great anatomical

* George Henry Lewes: "Aristotle: A Chapter from the History of Science," etc., etc., Lond., 1864, p. 268 (note): "Modern investigations show that the average of life is slightly in favor of women, and that their temperature also is slightly superior to that of men." The greater longevity of women than of men is forcibly shown in the author's paper on "Longevity or the Relative Viability of the Sexes; particularly with regard to the relative liability to the inheritance of certain transmissible diseases, considered in relation to the selection of life-insurance risks, with a view of exhibiting the unjustice of the practice of charging higher rates for women," etc., etc., —*New York Medical Record*, June 16 and July 15, 1873, pp. 397-393, 403-405.

† Confirmed in the author's article on "The Relative Viability of the Sexes," *New York Medical Record*, June 16 and July 15, 1873.

‡ De Long, et Brev. Vitae: Lewes, Aristotle, etc., Lond., 1864, p. 268.

§ De Generat. Animal., B. iv. ch. i.

¶ Aristotle (De Partibus, B. ii. ch. vii.) says, "The brain is the coldest part of the body." Compare Dr. John Davy (Res. Phys. and Anat., Lond., 1839, 8vo, vol. i. p. 157), where he says, "From the results of some observations already detailed, it would appear that the temperature of the brain is not quite so high as that of the rectum." In several experiments on sheep the brain was from .5° to 2° Fahr. lower than the rectum.

** Aristotle (De Partibus, B. iii. ch. iv.; also, De Generat. Animal., B. iv. ch. i.) maintained that the right side is warmer and nobler than the left. See further in the writer's paper on "The Developmental and Functional Superiority of the Right Side, and the Greater Frequency of Disease, Deformity, and Defect in the Left" (not yet published). Compare also Tamburini (*La Nuov. Lig. Med.*, March 10, 1873) on the "Functional Superiority of the Left Hemisphere" (or the brain). It is important, therefore, that the temperature should be taken on the same side.

†† Report of the Brit. Assoc. for the Adv. of Sci., 1864, p. 121.

‡‡ Report of the Brit. Assoc. for the Adv. of Sci., 1864, p. 121.

and physiological investigator, has shown by carefully conducted and frequently repeated experiments that the temperature of men and of the males of some of the inferior animals is suerior to that of their females.

In the human race the average is as

10.58 for males is to 10.13 for females: from elaborate experiments,—

for males, 99° to 99½° —average, 99¼°
for females, 97¾° to 98° —average, 97.875°
Difference in favor of males, 1.375°

In the common fowl a well-marked difference was discovered in temperature between the male and female. Of six fowls the proportion was 108.33° Fahr. for the male, and 107.79° Fahr. for the female, giving a difference of .54° Fahr. in favor of the male. The maximum for the male was 108.5°, for the female 108°.

"In a large number of instances, in which comparative trials were made with much care, he found the temperature of the woman a little lower than that of the man." ††

The following table of experiments on children fully corroborates this sexual differentiation:

Table showing the temperature of twenty-seven children, taken by the writer in the Obstetrical Wards of the Philadelphia Hospital, September 27, 1872, with discriminations of age and sex. (Taken in the axilla, at noon of the same day.)

No.	Ages.	Temperature in Degrees of Fahrenheit.		Average for the various periods (both sexes).
		Males.	Females.	
1.....	20 hours....	99.2	
2.....	24 "	99.		
3.....	28 "	99.4		
4.....	31 "		99.	
5.....	36 "	99.1		
6.....	3 days....	99.2		
7.....	5 "		98.7	
8.....	5 "		99.	
9.....	6 "		97.6	
10.....	7 "	98.3		
11.....	10 "	98.4		
12.....	2 weeks....	98.4	
13.....	4 "		98.5	
14.....	4½ "	97.6		
15.....	7 "	98.5		
16.....	7 "		98.	
17.....	9 "	98.3		
18.....	9 "		98.2	
19.....	3 months..	98.3	
20.....	4 "		97.8	
21.....	5 "		98.	
22.....	5½ "	98.		
23.....	9 "	98.4		
24.....	13 "	98.3	
25.....	16 "	98.		
26.....	22 "	97.5		
27.....	44 "	98.5		
Average.....		98.44	98.30	98.37

†† Report of the Brit. Assoc. for the Adv. of Sci., 1864, p. 121.

‡‡ The writer is indebted to the courtesy of Drs. Parry, Girvin, Duer, Ingham, Parish, and Potter, physicians to the hospital, for the privilege of making these observations.

The temperature of boys, ranged from 97.2° to 99.4° ; difference, 2.2° .
girls " " 97.6° to 99.2° ; difference, 1.6° .

The average temperature of 5 children aged 20 to 36 hours, was 99.14° Fahr.; 6 children aged 3 to 10 days, was 98.53° Fahr.; 7 children aged 2 to 9 weeks, was 98.17° Fahr.; 9 children aged 3 to 44 months, was 98.09° Fahr.; Total, 27 children, average temperature, 98.37° Fahr.

Dr. John Davy, F.R.S.,* also found the variation in temperature to be greater among males than among females,† as will be seen by the following:

Three men,
from 99° to $99\frac{1}{2}^{\circ}$, mean $99\frac{1}{4}^{\circ}$; variation $\frac{1}{2}^{\circ}$.

Three women,
from $97\frac{3}{4}^{\circ}$ to 98° , mean 97.875° ; variation $\frac{1}{4}^{\circ}$.

Difference in favor of men, 1.375° .

Women, therefore, have a lower temperature than men, and it is undisputed that they have a more frequent pulse than men. Valleix‡ has shown that the pulse of infants is subject to the following law, viz.:

In new-born children the pulse is less frequent than at the age of six months; the mean frequency while sleeping was 87; but, sleep itself being a cause of diminished frequency of the pulse, it is necessary to select a somewhat higher figure as that of the normal pulse. Everything warrants the supposition that this varies in frequency from 90 to 100.

I have shown in my tabulated observations that the temperature of new-born children is higher than at the age of six months,—indeed, that it gradually declines from the hour of birth to a certain age; and, as this temperature is lower than that of adults, there must be a time when it begins to rise, probably at the approach of puberty, or even earlier.

My table shows a gradual decline in temperature for each of the periods, though they were so short and near together.

The boys had a temperature of 98.44° , and the girls 98.30° , giving a difference in favor of the males of $.14^{\circ}$.

Children, therefore, have a higher temperature and a less frequent pulse at a few hours after birth than they have at any period afterwards, up to forty-four months (the highest age taken). They have also a lower temperature and a more frequent pulse than adults of the same sex. In these particulars, as, indeed, in all others of a developmental character, women stand between children and men.

It would appear to be a law, in healthy persons at least, that wherever we find a frequent pulse we have a lower temperature, indicating a relatively lower development, and *vice versa*.

Dr. W. F. Edwards found the temperature of the young of various animals to be from 1° to 3° Fahr. and from 2° to 5° Cent. inferior to that of their parents. Among the animals under observation were

the following: pups, rats, rabbits, guinea-pigs, star-hawk, magpie, thrush, starling, etc., etc.

The following figures are the result of his experiments on man:

	MEAN.	RANGE.	VARIATION.
Twenty adults,	97°	96° to 99°	3° Fahr.
Ten infants,	94.5	93.5 to 96	2.5

He concludes that "man is therefore proved to be subjected to the same law here as animals having warm blood in general, the young of which, so far as they have been examined, and, we may presume, universally, are inferior in temperature to their parents."§

"Dr. John Davy|| found that the temperature of a lamb was a degree higher than that of its mother; and in five new-born children the heat was about half a degree higher than that of the mother, and rose half a degree more in the first twelve hours after birth."¶

This method of comparison is subject to several sources of fallacy, so far as our object is concerned; for the mother's temperature** is manifestly not the same immediately after the birth of her child as that of a healthy vigorous woman who had not had any severe physical disturbance, such as child-birth undoubtedly is; and the mere fact of lying in bed for several consecutive hours is sufficient to render the comparison useless for our purpose. We want the average temperature of a large number of healthy children in lots of the same age, same sex, and same physical and social position, as compared with an equal number of adults taken in the same manner with reference to age, sex, condition, etc. When we have all the conditions fulfilled, we will find the same results as M. Edwards, viz.: That young persons have a lower temperature and a higher pulse than adults, until we reach extreme old age, when the second childhood returns, with its physical characteristics,—a lower temperature, a higher pulse, etc.

M. Roger†† made a very extensive series of experiments on the temperature of young children in health and in disease. According to Dunglison,‡‡ he found "in nine examinations, from one to twenty minutes after birth, the temperature observed in the axilla was from 99.95° to 95.45° . Immediately after birth it was the highest, but quickly fell to near the lowest point stated above. By the next day, however, it was entirely, or nearly, what it was before. The rapidity of the pulse and respiration appeared to have no certain relation to the temperature. In thirty-three infants, from one to seven days old, the most frequent temperature was 98.6° ; the average 98.75° ; the maximum, one case, 102.2° ; the minimum, also one case, 96.80° . All the infants were healthy. The frequency of respiration had no evident or constant relation to the temperature.

* Proceedings of the British Association for the Advancement of Science, 1863.

† Of the stature of the human race Geoffroy St.-Hilaire says, "The size of women is less variable than that of men," and this would probably be found true of other physical comparisons.

‡ Mémoires de la Société Médicale d'Observation de Paris, tome ii., Paris, 1844. Review in Med.-Chir. Rev., April, 1845, p. 390; compare also Mr. Gorham (Med. Gazette), M. Trouseau, and M. Billard.

§ Cyclopaedia of Anatomy and Physiology, Lond., 1836, art. Animal Heat, p. 662.

|| Philos. Trans., 1844, p. 57.

‡ Dunglison, Physiol., vol. i. p. 599.

** Dr. G. Wilds Linn, of the Philadelphia Hospital, has recently made some very valuable observations on the temperature of the lying-in woman, which will add greatly to our knowledge on this point, when published.

†† Archiv. Gén. de Méd., Juill., Août, 1844.

‡‡ Physiol., vol. i. p. 601.

A few of the infants were of a weakly habit; their average temperature was 97.70° ; the others were strong, and their average temperature 99.534° . The age, at this period, had no influence on the temperature, nor had the sex, state of sleeping or waking, nor the period after sucking.

"In twenty-four children, chiefly boys, from four months to fourteen years old, the most frequent temperature was above 98.6° ; the average 98.978° ; the minimum 98.15° ; the maximum 99.95° . The average of those six years old or under was 98.798° ; of those above six years, 99.158° . The average number of pulsations in the minute was, in those under six years, 102; above that age, 77: *yet the temperature of the latter was higher than that of the former and of younger infants.* There was no evident relation between the temperature and frequency of respiration; nor, in a few examinations, was the temperature affected in a regular way by active exercise for a short time, or by the stage of digestion; though 'Gierse*' found that the temperature beneath his tongue was 98.78° before, and 99.5° after, an early dinner."

"Dr. G. C. Holland† found that the mean temperature of forty infants exceeded that of the same number of adults by $1\frac{3}{4}^{\circ}$: twelve of the children had a temperature of from 100° to $103\frac{1}{4}^{\circ}$."

M. Edwards,‡ on the other hand, found that in the warm-blooded animals the faculty of producing heat is less the nearer to birth, and that, in many cases, as soon as the young dropped from the mother the temperature fell to within a degree or two of that of the circumambient air; and he moreover affirms that the faculty of producing heat is at its minimum at birth and increases successively to the adult age. His trials on children at the large Hôpital des Enfants of Paris, and on the aged at Bicêtre, showed that the temperature of infants one or two days old was from 93° to 95° Fahrenheit; of the sexagenarian, from 95° to 97° ; of the octogenarian, 94° to 95° ; and that, as a general rule, it varied according to age.§

M. Edwards further states that warm-blooded animals, born with the eyes closed, resemble the cold-blooded animal; the latter, or those born with the eyes open, the warm-blooded. He actually found the temperature of a seven months' child, two or three hours after birth, was only 89.6° Fahr. He suggests that that of a child born in the fifth or sixth month, before the *membrana pupillaris* disappears from the pupil, ought to be much lower. This state of the eyes must be considered as indicative of the immature stage in the development of the animal. It would be interesting, as a further confirmation of this law, to observe the temperature and pulse in the young of marsupial animals.

Under what circumstances Dr. Holland could have found such a uniformly high temperature as 100° to $103\frac{1}{4}^{\circ}$ in children, I am entirely at a loss to comprehend or imagine. There is, without doubt, some source of fallacy in these observations, as they are at

variance with the results of all similar experiments, and opposed to all the theories hitherto propounded.

It is important to know that the sanguine temperament indicates the highest physical development, and that persons having this temperament have a larger proportion of red corpuscles and solid constituents in their blood, and a higher temperature, than persons of any other temperament, particularly the lymphatic, which latter, according to a French physiologist, accompanies physical degeneracy of the race. It is, therefore, quite possible that a woman with a sanguine temperament may have a higher temperature than a man with a lymphatic temperament. The sanguine temperament is, I believe, more frequent among men, and the lymphatic more frequent among women.

The following is a summary of conclusions and deductions arrived at from a careful study of this subject:

1. That males have, as a rule, from the beginning to the end of life, a higher temperature, and a less frequent pulsation of the heart, than females, varying nevertheless, according to temperament, constitution, age, and condition of health.

2. That children have a higher temperature at birth, and for a short time subsequently, which, though slightly lower than that of an adult, nevertheless slowly and gradually declines to a certain point until about the sixth year of age is reached, after which it gradually increases until developmental maturity is reached, when it gradually and slowly declines again as old age (second childhood) advances.

The pulsation of the heart follows just the opposite course, being most frequent when the temperature is lowest, and least frequent when it is highest.

3. That males appear to have a greater variation in temperature than females, thus agreeing with their greater variation in stature and many other peculiarities.

4. From all of which we conclude that the woman approaches more to her condition as a child than the man does, and is consequently less highly developed. The male is a secondary evolution from the female.||

2003 WALNUT STREET, PHILA., September 29, 1873.

IS THE PRESENCE OF THE HYMEN A PROOF OF VIRGINITY?

BY CHARLES W. BROWN, M.D.

I PRESENT the following case to your numerous readers as a rare one, and also to show the value of an unruptured hymen as proof that rape has not occurred:

* See further on this theory of development in the author's papers on "The Relative Viability of the Sexes," etc., etc., New York Medical Record, June 16 and July 15, 1873, pp. 9; also, "Longevity and other Biostatic Peculiarities of the Jewish Race," N. Y. Med. Record, May 15, 1873, pp. 24-5; also, "The Laws of Transmission of Resemblance from Parents to their Children," New York Medical Record, August 15, September 15, October 15, and November 15, 1873, pp. 15; also, "Statistics relating to Births, Deaths, Marriages, and Movement of Population in Philadelphia for the Eleven Years ending 1871," Penn Monthly, September, 1873, and Papers of Social Science Association of Philadelphia, 1874, pp. 24; also, "The Physical Aspects of Primogeniture," New York Medical Record, December 15, 1873; also, "Effect of Nationality of Parents on Fecundity and Proportion of Sexes in Births"; also, "Observations on the Relation between Development and a certain Abnormal Condition of the Flowers of Zea Mays"; also, "The Proximate Cause of Evolution" (not published).

† Dunglison, *op. cit.*

‡ An Inquiry into the Laws of Life, etc., Edinburgh, 1829.

§ De l'Influence des Agens, etc., p. 436, Paris, 1826.

October 10, 1873, I was called to see Mrs. W., aged 26; found her pregnant, full time, and in early stage of labor. She was very much frightened, and told me her child could not be born, as there was "no opening, and never had been." Upon examination, I found the hymen intact, and quite firm and rigid. Towards the lower part of the membrane I found a small aperture less than one-quarter inch in diameter. The parts were excessively tender, and it was with difficulty that I could introduce the tip of my little finger. In this way I commenced the dilating process by gentle but steady pressure until I could introduce the tip of the first finger. By keeping up this process for two hours I could with difficulty introduce the first and second fingers. I found the os had not dilated any, and was rigid. Gave patient a full opiate, and saw her again in three hours; found the os in a more dilatable condition, and pains increasing. The patient being a slender small woman, the pains did not increase as they should; but after administering quinia, alcoholic stimulants, etc., the pains came more regularly and with more force. At the end of ten hours the head was resting in the lower strait, and the pains did no good; the cranium of the child being hard and unyielding, the pains were growing weaker. I then gave ergot, with but very little effect. In two hours more I applied the forceps, and in a short time she was delivered of a large healthy female child; and in the course of half an hour the placenta was delivered, patient being in a very comfortable condition. She recovered without any unfavorable symptoms, but without any lacteal secretion. About eighteen months since, she had an abortion at about the second month; she was treated by Dr. E.; the foetus and membranes passed off through the small opening in the hymen, and she made a good recovery.

I think I have never read of a case becoming twice pregnant with the hymen intact.

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relaxed in rapid succession; the face is now turgid and distorted, the head, trunk, and limbs are jerked about with violence, the tongue is protruded and wounded by the teeth, and blood-stained saliva runs from the mouth. The clonic spasm rarely continues over six minutes, and usually not more than three or four. Paroxysms of such character and duration may either be single or a number of them may occur in quick succession; when they are over, there is total unconsciousness of what has happened, and very often deep sleep; on waking from this the attack is ended, to return again after a longer or shorter time. At first the mind is clear during the intervals, but grows less so as the disease advances. These points are well illustrated by the case before you. The patient is thirty years of age, a bar-tender by occupation, and for the past six years has been intemperate and excessively addicted to venery. Although much exposed, he has never had any venereal disease. Three or four years ago he began to have epileptic attacks coming on during sleep: these occurred frequently, sometimes once every night, at other times only once in two or three weeks, and were often accompanied by seminal emissions. At present, according to his own statement, he copulates from once to four times daily, and drinks in the same proportion; he has never had an attack during coition, but on several occasions some hours after the act. The paroxysms begin with pain in the stomach, and a sensation in the ring-finger of the left hand like that produced by the faradæc current: this quickly passes over the whole hand, and then up the arm, which is moved about violently during the passage; when the aura reaches the head he becomes unconscious. The duration of each fit is short, and as soon as it is over he falls into a heavy sleep, from which he wakes with a severe headache. The attacks can be stopped by grasping the left wrist firmly or by rubbing the left hand when the aura is first felt: this he always does in the daytime; at night, however, he rarely wakes up soon enough, for after the aura has passed the wrist it cannot be arrested. On this account the great majority of the paroxysms have taken place at night.

The word *aura* means air, and is used because the sensation which precedes the epileptic seizure sometimes resembles that produced by a draught of cold air running up from the part first affected towards the cerebral centres. There are three forms of *aura*: the sensory, the molar, and the stomachic. The first, so called from its being manifested by some abnormal sensation, as heat, cold, or formication, is very rapid in its course. The feeling of a cold breath creeping through the system, from which the term *aura* is derived, belongs to this class, but is hardly ever met with. The second variety of *aura* is distinguished by either convulsive movements or paralysis, starting in distal portions of the body and extending upward; while the stomachic form consists of pain or other unusual sensation beginning at the pit of the stomach, exceedingly swift in its transmission, and most frequently observed in females. If the *aura* can be checked in its course, the paroxysm is prevented; at the same time, it must be remembered that it is often too quick in its passage for this to be done, and that there are many cases in which *aura* does not exist. In the man before you the *aura* belongs to the sensory class, and is probably of centric origin. This question of origin, whether central or peripheral, is a curious one, and one upon which proper treatment depends: care should therefore be taken to investigate it, though such investigations are by no means always successful.

Epilepsy may be due to hereditary tendency: so universally is this accepted that Frank reports that it was an old Scotch custom to castrate all epileptics, in order that the race might die out. Nervous diseases—for

NOTES OF HOSPITAL PRACTICE.

UNIVERSITY OF PENNSYLVANIA.

SERVICE OF DR. H. C. WOOD,

Clinical Lecturer on Diseases of the Nervous System.

Reported by DR. LOUIS STARR.

EPILEPSY ARRESTED BY STOPPING AURA—SIMULATED NOCTURNAL EPILEPSY—EPILEPSY WITHOUT LOSS OF CONSCIOUSNESS—EPILEPTIC DELIRIUM.

IT is difficult to give a correct definition of epilepsy, as different types of it are met with: it will be better, therefore, to lay before you a typical sketch of the disease, and then show how it varies. The affection is made up of a series of paroxysms which occur at irregular intervals. Each attack begins with an *aura* starting in some distant part of the body, as in one of the fingers or in the foot, and extending upward: when it reaches the head, a loud shriek is given, and the sufferer falls unconscious; as he falls, the face becomes deadly pale, and the body rigid, being in a state of tonic spasm. This condition lasts but a few seconds, and is hence often overlooked. The convolution next becomes clonic,—that is, the muscles are forcibly contracted and

example, hysteria, epilepsy, and insanity—are very closely related, and often alternate in successive generations. Other causes are acute diseases, exposure to the sun, and organic disease of the brain, or it may arise spontaneously, apparently without cause. In this patient it is evidently due to excessive venery. The first indication in treatment is to remove the cause, when it can be determined: until this is done, little benefit may be expected from medicines. In bromide of potassium we have a valuable remedy: its mode of operation is to lessen reflex actions and the excitability of the nerve-centres; but in order to accomplish this it must be given in full doses (3) t. d.) and increased until some effect is produced,—that is, until the blood has, as it were, become super-saturated with the salt. Notice should be taken of the fact that bromide of potassium is useful in proportion as the paroxysms are frequent, violent, and fully developed, being much less so in the various modifications of the disease. Next to the bromide in point of utility may be mentioned belladonna and nitrate of silver,—the former being given in sufficiently large doses to produce slight dryness of the throat, and the latter in doses of one-fourth to one-half a grain, continued for some time, always bearing in mind the danger of producing discoloration of the skin: this may be avoided by discontinuing it for several weeks after it has been taken for six or eight weeks, especially if iodide of potassium is used in the interval.

The man before you has his attacks in the night, but only because in the daytime he always arrests the paroxysm. There is, however, a form of epilepsy—"night-epilepsy" so called—in which the paroxysms occur only at night: they may be violent, when they are easily recognized; they may be so insidious as not to be suspected by the sufferer, and only to be discovered by the physician after the most careful search. When, however, in an adult, complaints are made of a feeling of apparently causeless malaise, with confusion of thought and headache on getting up in the morning, always be on your guard, and if the tongue is bitten and the urine voided in bed at night an almost certain diagnosis of "night-epilepsy" can be made. Of course the diagnosis of epilepsy should not be given hastily, as the prognosis is so frightful; yet, though you hold your peace, never be deceived in these cases, especially since very frequently a full dose of bromide at bedtime every night will arrest the disorder.

Wetting the bed at night is one of the most characteristic symptoms of this form of epilepsy, and its presence or absence should influence very greatly your decision. Not long since I was consulted by a distinguished practitioner, who feared that he was suffering from this affection, but in whom I was able to make a more favorable prognosis, which so far has been verified. Some years before, he had broken down from overwork, and, although he had in great measure recovered, had never regained his normal mental vigor and power of work. He had noticed for some time that his tongue was bitten on getting up in the morning, and he was partially conscious of the fact, or had the idea, that the injury occurred just at waking. He had never wetted the bed, had never suffered from any mental disturbance or malaise after the biting of the tongue, had never suffered from "petit mal" or any form of diurnal epilepsy. I therefore told him I did not believe he had nocturnal epilepsy. Still, the fact of the bitten tongue remained. Knowing that he had suffered at the time of his break-down a slight paralytic stroke, I suggested that perhaps one side of the tongue had remained less sensitive than the other, and that, lacking this guide to its movements, it sometimes got between the teeth and was bitten, especially in the first movements of waking, when the senses are all benumbed with sleep. Examination showed this to be the case; and he also stated that the

injury was always on one side of the tongue,—namely, that in which the sensation was impaired. Now, if these two points had escaped observation, much doubt might have been felt as to the nature of the case.

In petit mal—the second variety of the disease—there are no convulsions, and the loss of consciousness is of such short duration that the muscles remain contracted and there is no fall.

I do not propose to say much to-day about this petit mal, but merely to allude to a rare and very serious form of it, in which a paroxysm of delirious fury replaces the usual momentary simple loss of consciousness. This delirium is furious in character, very often homicidal. Generally there is a marked destructive tendency, or the patient fights those around him, under the delusion that he himself is being attacked. The celebrated alienist Dr. Gray was some time since sitting at a table with a lawyer who had suffered from petit mal, when the latter attacked him with a knife, intent upon his life. The case whose history follows presents itself to us for diagnosis. The point to be determined is whether the man has or has not had a paroxysm of epileptic delirium.

Joshua H. C., æt. 42, white, has always enjoyed good health. About three weeks ago, having been exposed to much cold and wet in his occupation (that of a car-driver), he took a severe cold, which kept him at home for three or four days. At this time there were no epileptic symptoms. After this he felt well until last Sunday morning, October 26, when he went out to walk, very thinly dressed, although the day was quite chilly. On returning to his home he had a severe chill, and complained of dimness of vision, lasting about three-quarters of an hour, with frontal headache and vomiting. His friends say that after this he was wildly delirious, doing peculiar things, seizing and hugging his wife, rushing around the room, yelling, etc., etc., but not offering violence to any person, and showing no destructive tendencies whatever. It should be mentioned that he has always been nervous and excitable, and that the night before this attack he had had a domestic quarrel.

Under cupping to the back of the neck, the man recovered his reason in about twenty-four hours.

In many respects this case is obscure. At first sight it resembles epilepsy. But there is no history of wetting the bed, or of other indications of night-epilepsy,—of momentary loss of consciousness, or other indication of petit mal; and the delirium was unlike the usual form of epileptic furor in that it was not directed to the destruction of any object, either animate or inanimate. Cantharides, Indian hemp, or atropia, when taken in sufficient doses, might produce similar symptoms; but this man has not taken them. It cannot have been meningitis, for there was no fever; nor was the attack malarial,—although I have seen pernicious fever with very similar symptoms,—for the chill has not returned; nor is brain-tumor the cause, since, although sudden symptoms may come from such cause, yet there are generally apoplectic symptoms, and indications of paralysis exist in a greater or less degree somewhere. Moreover, the patient has not had any marked headache. I think the case, being none of these, is probably *mania transitoria*, which often occurs after chronic diseases, great anxiety, and the like, and which in many respects is closely allied to hysteria. In the case now before us it was probably induced by exposure to cold and by the excitement of a domestic quarrel.

In the third and last variety of epilepsy there is no loss of consciousness. This form is very rare, and even the possibility of its occurrence has been denied by many authorities, who hold that unconsciousness is the only symptom of epilepsy that is never absent. The following history shows that this form may be met with. Thomas —, æt. 20, began to have epileptic fits nine years ago.

The paroxysms from the outset have been frequent, from one or two every week to three or four daily. They are always preceded by a well-marked aura, originating in the feet and passing upward; when it reaches the arms the convulsion begins. This affects both arms, the muscles of the upper part of the back, and those of the neck. During the spasm the pupils are widely dilated, the face is congested and disfigured, the head is drawn to the left, and the arms are lifted above the head and jerked wildly about. The attack lasts about thirty seconds; there is no loss of consciousness, and he does not fall. He had an attack at one of his visits to the dispensary; so that the truth of his statement as to the loss of consciousness can be fully verified.

From March 10 to July 10 the treatment adopted was, first, large doses of bromide of potassium, then belladonna with nitrate of silver, and, finally, bromide of sodium; and, although the paroxysms appeared at times to diminish in frequency, no great improvement was brought about. Since July 4 he has not been seen, and most likely he has applied for aid elsewhere; though it is hardly possible that anything can be done to give him permanent relief.

This case, I think, must be considered as of the nature of epilepsy, from its commencing with aura, its paroxysmal nature, and its intractableness. If you use the term *cerebral epilepsy* for that form of petit mal in which consciousness is not lost, you may speak of this form, in which consciousness is preserved but convulsions occur, as *spinal epilepsy*.

PENNSYLVANIA HOSPITAL.

SERVICE OF DR. T. G. MORTON, SEPTEMBER, 1873.

Reported by DR. D. DAVIDSON.

GUNSHOT-WOUND INVOLVING THE STOMACH.

CASE I.—Post-mortem.—This specimen was removed from a man aged 21, brought to the hospital in September. A few hours before admission he was struck by a small ball, which entered an inch below the arch of the ribs, in front and on the left side. Considerable blood was vomited immediately after the injury; intense pain and prostration were prominent symptoms; the pulse was feeble and quick. Magendie's solution in fifteen-minim doses was freely given by the skin. The following day his condition was the same, except the advent of tympanites; and large doses of morphia were constantly given, to relieve pain. On the third day there was marked peritonitis, and death occurred on the fourth day. On examination we find that the bullet pierced the abdominal walls about three inches below the ensiform cartilage and one inch on the left of the median line, passed somewhat downwards and to the left side, cutting through the border of the left lobe of the liver; its course was then traced through the anterior and posterior walls of the stomach; passing backwards, the eleventh rib was fractured, and the ball was found imbedded in the quadratus muscle.

The abdominal viscera are more or less agglutinated together by recent lymph.

In a case like this, the treatment consists simply in giving powerful opiates and supporting the patient; there is never any use in probing for the ball in wounds of the viscera, for it is not the presence of the ball, but the injury the ball has inflicted in its course, that does the damage.

STRICTURE OF THE OESOPHAGUS.

Case II.—This negro presents himself for examination; he is only 50 years of age, although he looks much older; we see that he has suffered severely; he is greatly emaciated. He states that his health was per-

fect until two or three months since, when he experienced a constriction or choking sensation in swallowing; he has rapidly grown worse, and now is unable to swallow any kind of food; even a few drops of water give intense suffering. These symptoms indicate a stricture, and may have been produced by the lodgment of a foreign body in the oesophagus; but the patient has no recollection of any such accident. On examination, we find no enlargement of the throat or glands of the neck; there is no arterial tumor pressing on the passage: we therefore suspect, from the rapid wasting of the patient, his age, and the quick development of this disease, a growth probably carcinomatous.

In order to ascertain the location of the stricture, I introduce the ordinary stomach-tube, and find about eight inches from the mouth an obstruction so obstinate and sensitive that I am unable to carry the instrument beyond it into the stomach. There is unquestionably a stricture, which is probably cancerous. Since we cannot dilate the constriction, we advise the patient to be fed by the rectum with concentrated food, and three times a day we shall give him ten grains of the iodide of potassium by injection. Gastrotomy might be performed, but the patient is too feeble for us to recommend such an operation.

[The above patient died in September, and on a post-mortem examination a dense scirrrous growth was found encircling the oesophagus midway between the stomach and the pharynx. Dr. Richardson, the pathologist, reports that "the tumor is seated between the bifurcation of the bronchi and the oesophagus (the latter of which it surrounds and constricts), 'cries' under the knife when cut, and yields on scraping an abundant milky juice. Under the microscope this juice exhibits an immense variety of oval, caudate, spindle-shaped, and multangular cells, many of them with two or three large nuclei, and a few showing the characteristics of mother-cells. Thin sections from the neighborhood of the incision display a rather firm stroma, with moderately thick trabeculae, in the meshes of which the lawlessly-growing cells are arranged in groups, without any intercellular substance between the individual elements. The specimen is, therefore, one of *scirrrous cancer*."]

TRANSLATIONS.

ENCEPHALIC SOFTENING IN THE NEW-BORN.

By M. J. PARROT. Translated from the *Archives de Physiologie* for January, March, and May, 1873.*

BY FRANK WOODBURY, M.D.

THE author shows from the bibliography that this subject is comparatively new, very few of those writers who are in the best position to discuss it having referred to it; even these mention it in such an incidental manner as to show that they have failed to clearly separate it from post-mortem change. The article is based upon personal observation of twenty-eight cases occurring in premature births and infants (the oldest of which was thirty-six days): these are quoted under the different subdivisions of the special pathology of the subject, which are taken up consecutively, as follows:

Pathological Anatomy.—In the normal condition the dura mater of the new-born adheres strongly to the

* The article is here condensed, and the description of cases omitted, for which the reader is referred to the original, of which this is an abstract rather than a translation.—F. W.

calvaria and is removed with it. The meninges are easily detached from the convolutions, which are much less clearly defined and have comparatively less depth than in the adult. The brain-substance itself is soft, friable, and in consistency and color resembles freshly-curdled milk slightly tinged with coffee. It is deficient in white nervous substance and neuroglia, but contains a multitude of cells surrounded by protoplasm. This description applies more particularly to the hemispheres, the other portions of the encephalon being in a more advanced stage of development. There is another particularly important point in the structure of the cerebrum: it is the existence, among the elements mentioned, of fatty granules grouped around the cells of neuroglia, where they are sometimes so numerous as to form a true granular body. These are most frequently seen in the corpus callosum and periventricular region of the lateral ventricles. In the normal condition these masses of fatty molecules are always isolated; they are also found in the nerve-tubes before they are fully developed, but not after. The presence of fat, then, in the brain is an indication of its imperfect condition.

The molecules of the brain-substance being so feebly united, we can easily understand that the encephalon yields readily to influences which tend to diminish the cohesion of those particles. These influences are of two kinds: morbid, acting during life, and physical, coming into play only after death.

Post-mortem change is indicated by the odor of sulphuretted hydrogen, by the general softening, and by section, which exhibits numerous grayish opaque spots the size of a pin's head, composed of vibrios. In these cases softening generally is found in the other viscera. These results are more marked when the brain has previously been the seat of disease.

Pathological softening is of two kinds, requiring separate description. The first is the more frequent and clearly defined, but, at least to our knowledge, has not been described by any author (we except M. Virchow). This we will call *multinodal white softening* (*ramollissement blanc à foyers multiples*). It is intimately connected with, and forms the ultimate stage of, fatty degeneration. The fat, when in considerable quantity, is aggregated in white patches and intersperses apparently healthy tissue. These patches contain centres of softening, and exist almost exclusively in the centre of the hemisphere near the lateral ventricles, into which they never penetrate, being separated at least by the lining membrane. Outside of the patches is diffuse interstitial fatty deposit, and the vessels, especially at the periphery, are markedly congested.

The other variety is *red softening*. On making a section of the hemispheres, the cerebral material in their centre, to a greater or less extent, is found to be converted into a reddish-violet pulp interspersed with dark points and tracts which are vessels filled with coagulated blood. The surrounding region is much congested, and sometimes exhibits capillary hemorrhage. Like the preceding lesion, it never invades the lateral ventricles during life. In most of the cases examined there was found a thrombosis of the entire encephalic venous system; the veins being sometimes surrounded by a yellowish exudation, which, infiltrating the arachnoid, formed opacities of variable extent. In this red softening we also find fatty degeneration, which rarely, however, is in such quantity as to produce patches. This, however, might easily occur, as it is simply a question of degree, although it was not met with in any of the detailed cases. Thus the two kinds of softening, although varying in some of their conditions, are identical in their pathology.

The condition of some of the other organs merits attention. The oldest or primary lesions affect the

upper part of the digestive tube. Muguet extends sometimes as far as the gastric mucous membrane, which contains numerous ulcers of very small diameter. The other lesions resulting from this are alterations of the blood and of different viscera. The blood is less abundant than in health, and shows enlargement and disposition to concretion of the globules, not only in the brain, but elsewhere. In the lungs congestion and centres of inflammatory hardening are rare, but emphysema often exists, with fatty infiltration of the alveolar epithelium. The heart shows some fatty change, which also affects the renal tubules. The visceral fatty degeneration differs in degree in different cases, but is always inadmissible evidence of impaired nutrition.

Symptomatology.—In twenty-three of the cases we noted occasional signs of brain-trouble, but they were fugitive and showed nothing characteristic. In seven only did it take the form of well-defined convulsions; but whether this was due to the softening remains to be seen. In the mean time we declare that in those patients where the softening was the consequence of fatty patches there was nothing that could give a hint of its existence.

A fact worth noting is that the temperature was not elevated above the normal, even in a case complicated with meningitis. The radial pulse did not exceed 136.

Etiology and Nosogenesis.—The cases were nearly equally divided as regards sex. The oldest was 36 days, and in some the ossific centre in the femur was either absent or smaller than in infants at term. The season of the year exercised little or no influence upon the disease. Digestive troubles were the usual complications; since in nineteen out of twenty-three cases they were the first symptoms, and ceased only with death.

But in order to understand the morbid connection it is indispensable to distinguish the two kinds of softening. We find the white softening, which is the most frequent, constantly among infants suffering from inanition, because this has for its point of departure gastro-intestinal troubles or accompanies anasarca, as a consequence of the native weakness which is the most constant cause of the oedema of the new-born. In a previous paper we proved that inanition engendered fatty change in the brain.*

In seven cases we found red softening, in five of which clots were found obstructing veins of the brain and dura mater, with or without an exudation of leucocytes around the vessels. It is easily seen how the red softening is produced. The occlusion of the veins obstructs the local circulation, causing distention of the capillaries and a transudation of serum; this imbibed by the brain-substance reduces its consistence, to be still further diminished by mixing with blood extravasated by rupture of some of the minute and poorly-nourished vessels. The venous thrombosis is undoubtedly due to an alteration in the blood, because the same condition is found in the kidneys and sometimes in the pulmonary arteries. Following the troubles of digestion and nutrition, the blood loses its serum and becomes thickened; this consistence and the defective impulsion of a feeble heart produce a notable slowing of the circulation. The leucocytes, relatively or absolutely increased, aggregate along the vascular walls, and there form a mass which is a point of departure for thrombosis. In fact, we saw that certain of the venous clots were entirely composed of leucocytes.

Pathology.—In only six of the cases were there unmistakable convulsions, and these were dissimilar. In each of these additional causes were present which might account for the phenomena; such as meningitis, disease of the cerebellum, or renal thrombosis. In one

* Sur la Stéatose viscérale par Inanition chez le Nouveau-né, in Comptes-Rendus de l'Académie des Sciences, 18 Août, 1868.

of the cases the child was evidently an idiot, which we will merely mention here, reserving its discussion for another article, in which cases of idiocy will be considered whose cerebral lesion is connected with that discussed in the present article.

Encephalic softening may exist beyond the point of infancy without losing the characters above shown. It is found in the fetus and in children of several months or even years, in which case its début is difficult to fix, but is probably not far from birth. Some of these cases had a serous effusion distending the lateral ventricles, due to the brain-softening, which was entirely unsuspected during life.

In twenty-three cases the disease remained, so to speak, latent. In reflecting upon the semeiology of this affection, we are forced to the conclusion that the lesions of the cerebral substance proper, however extensive or pronounced they may be, only in an exceptional manner exhibit themselves by appreciable phenomena.

The studies we have just made would be devoid of value to general pathology if we did not in the same connection consider the cerebral softening of different epochs of life, in order to point out their analogies and differences. Why does it occur most frequently at the two extremes of life? What causes concur in the aged and in the new-born?

In senile softening we find a uniform lesion, clearly circumscribed, occupying indifferently the periphery, centres of the hemispheres, or the ganglia, and, when it has existed sufficiently long, establishing a kind of cicatrization and provoking secondary atrophy of the neighboring structures. Very unlike this is the lesion in the new-born: in almost all the cases the disease is limited to the hemisphere proper, affecting symmetrically its medullary centres, only invading the convolutions exceptionally and when the disease is old. The lesion may be diffused or in small but numerous spots. The patient rarely survives long, but even in such cases we do not meet anything resembling the yellow patches or cellular infiltration of senile softening. The altered nerve-substance is gradually absorbed, and the resulting void is filled by serous exudation. Finally, secondary degenerations are rare.

Clinically the difference seems still greater, since in the new-born the lesion is latent and cannot be diagnosed, whilst in the aged it manifests itself by striking and ordinarily characteristic symptoms. In the pathogenesis the dissimilarity is no less marked, for in advanced age the point of departure of the softening, except in rare cases, is in the obstruction of the arterial system by atheroma, thrombosis, or embolism; whilst in the first days of life it is in the blood, whether it acts directly by the formation of clots or by nourishing insufficiently the nerve-substance.

If this comparison exhibits many points of difference, it is because we have so far only examined the details, whereas if we seek the source of the malady we will find it to be the same in both cases.

In short, the arterial or cardiac lesions which in the aged produce thrombosis or embolism are the consequence of the inevitable defects of nutrition which are entailed on long life. In the new-born it is also a profound disturbance of the nutritive process which, through the blood, induces the disintegration of an organ of which time has not yet corrected the natural softness.

The points of pathological anatomy and pathogeny to which this memoir is devoted having only been glanced at by former writers, and as these are based on personal observation, we believe we may regard this as an original work, and consider the following propositions as hereby established:

1. The encephalon of the new-born is normally ex-

ceedingly soft, because cells abound in the reticulum, and the true nerve-elements, particularly the tubes of myeline, exist in very small proportion.

2. Predisposed in this way, softening is easily produced during life from pathological, and after death by physical, influences.

3. Post-mortem softening is distinguished by the odor of sulphuretted hydrogen, and the whitish-gray spots, full of vibrios, generally caused by a tardy autopsy and an elevated temperature.

4. Pathological softening is of two principal forms:

a. Multinodal white softening, connected with fatty brain, of which it is the last stage, which has its seat almost exclusively in the centres of the hemispheres.

b. Red softening, which invades the same regions, but to greater extent, and is accompanied by capillary hemorrhage.

5. These two kinds of softening, which ordinarily exist apart, may co-exist.

6. Other lesions frequently accompany, and are intimately connected with, the preceding.

a. Intra-cranial,—old clots in the sinuses and veins of the pia mater, with a sub-arachnoid and peri-venous yellowish exudation, consisting of leucocytes and granules of protein.

b. The blood and different viscera are affected, especially the digestive tube.

7. Inanition is the usual and most certain cause of new-born encephalic softening.

8. In the majority of cases the brain-symptoms observed during life were uncertain, and in no case could a diagnosis be made from them.

9. Encephalic softening of the new-born may be observed with all its phenomena in the fetus and in infants of several months, but in the latter case its début dates back to a period near to birth.

10. When the lesion is old and extensive, it may produce—

a. Secondary degeneration of the pons Varolii, medulla, and spinal cord.

b. An intra-cranial effusion, with or without development of hydrocephalus.

11. Encephalic softening is very frequent at the two extremes of life; and, whatever points of undeniable dissimilarity exist in the lesion itself and the symptoms, its first cause appears to be identical, and consists, in the new-born as in the aged, in a *failure of nutrition*.

GLYCERIN OF BORAX IN FACIAL ERYSIPelas.—Prof. D. M. Salazar, of the Hospital Nacional, Madrid, reports that he has cured eight cases of facial erysipelas in forty-eight hours by this remedy. Notwithstanding the rapidity with which the affection disappeared, there were no consecutive pathological affections. In one case the disease had existed three days before treatment was commenced, and there were bilious vomiting, intense cephalgia, high fever, inflammation of the entire face, and some phlyctenulae in the vicinity of the right lower eyelid and the root of the nose. He applied the solution to the diseased parts with a brush, and then covered them with a mask of raw cotton. After twenty-four hours all the symptoms, local and general, were notably diminished, and the next day all the phlyctenulae had disappeared and desquamation was commencing.—*El Amfit. Anat. Espana.*, March, 1873.

FORMULA FOR CORYZA.—

R. Pulv. cubeb., 3ij;

Pulv. cupri sulph., gr. ij.—M.

In one box. Snuff up a small pinch about every two hours till relieved.—*Thomas Barrows, M.D., in Medical and Surgical Reporter.*

PHILADELPHIA
MEDICAL TIMES.
 A WEEKLY JOURNAL OF
 MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, NOVEMBER 8, 1873.

EDITORIAL.

PROFESSIONAL ADVERTISEMENT.

THE idea or theory upon which the modern practice of advertisement is founded, we take to be this: John Jones has something that Joseph Smith wants; but if Joseph Smith does not know who has the article, John Jones can't get rid of it. Hence John advertises to let Joseph know where to find what he wants.

This is the original idea of advertisement. But of recent times traders have gone a step beyond it, and advertise for the purpose of creating a want in buyers,—and, undoubtedly, do so with success. Joseph has been contented with his old pantaloons, or with his worn entry oil-cloth, but is moved to discontent by the skilfully-worded paragraphs of John, and a new pair of pantaloons, or, perhaps, a "wooden carpet" or tiled floor, can alone still the unrest in his bosom.

All this may be well,—may make business lively. We have no concern with this: the question of interest to us is, How far is it proper or expedient for the profession to use the methods of trade? Seemingly, there is nothing wrong in Dr. Brown's telling his neighbors through the columns of the daily paper that if they wish his services they can have them. The trouble seems to be that if the doctor does this, the temptation to do more is such that average medical human nature can't resist it. Dr. Brown will very innocently tell his neighbors that he has paid especial attention to diseases of the

genito-urinary organs; has been educated under Sir William this, or that, abroad; studied in this or that hospital: all true, perhaps, but very demoralizing for a man to publish of himself. He who commences in the most hesitating plaintive tones to blow his own trumpet in the public press will, by-and-by, end in a brazen blast rivalling that which shook the walls of Jericho.

This is human nature. Well, therefore, does the code of the American Medical Association read,—

"§ 3. It is derogatory to the dignity of the profession to resort to public advertisements, or private cards or handbills, inviting the attention of individuals affected with particular diseases,—publicly offering advice and medicine to the poor gratis, or promising radical cures; or to publish cases and operations in the daily prints, or suffer such publications to be made; to invite laymen to be present at operations; to boast of cures and remedies; to adduce certificates of skill and success, or to perform any other similar acts. These are the ordinary practices of empirics, and are highly reprehensible in a regular physician."

It is evident, however, that in some way or other a physician must be known before he can be employed. Of course the chief way in which, in the generality of cases, the reputation of a physician grows is by the word of mouth of his patients. There are, however, various indirect methods of advertising, some of which are not only legitimate and honorable, but, from the nature of the case, unpreventable. A portion of the value of positions in hospitals, medical schools, and other public institutions arises from the advertisement which they give to those who hold them,—endorsing them before the public as men of skill and attainments in their profession. Again, writing is a method of indirect advertisement. Articles in medical journals, medical monographs, and other works, of course publish their authors primarily and chiefly among the profession, but to a certain extent also among the people.

The value of such indirect advertisement is shown by the bitter controversy which has recently taken place in London in regard to the propriety of professional men "making known in a genteel way" that they are the authors of works on especial subjects in medicine. It has been the custom in the city named, when a physician writes a work on this or that specialty, to advertise the book extensively in the London *Times* and other secular papers, and even to put out placards of the same in the streets, ostensibly for the purpose of selling the book, really with the design of making the public aware that Dr. Jones is authority as an aurist, oculist, chiropodist,

or what may be. Now, the Council of the London College have recently condemned this proceeding, prohibiting the members from advertising their books in this way; and their action has given rise to some plain talking. It has been freely asserted that the established physicians who constitute the Council, desiring to maintain the undisputed possession of their respective cocklofts, have kicked away the ladder up which they have climbed. One "medicus" asserts that to stop advertising his books would "retard his advance in practice ten years, and keep him starving," and pointedly calls attention to the fact that the works of Mr. Curling, President of the College, have been advertised to such an extent as to make Curling and testis household words in the community, and consequently to establish their author. Another correspondent alludes pleasantly to the circumstance that the London *Lancet*, which has strenuously upheld the Council, placards the railway stations with the titles of communications on "Tumors of the Womb," "Rectum," and other subjects generally supposed not to offer edifying reading for mixed companies of ladies and gentlemen. The upshot of the controversy, so far as can be judged at this distance, will be that authors will sell their works to publishers, with the secret understanding that they shall be advertised, and then defend themselves before the College as having no control over their books. Indeed, the defence offered for the president in the matter already alluded to seems to us to amount to this.

In this country this avenue to practice has as yet scarcely been opened, even as a corduroy road. A mine that has been worked and found to contain golden ore is writing for popular magazines articles on subjects so closely allied to medicine as to put their authors in a favorable light before the public. This practice is certainly not to be condemned altogether. If a physician have anything new to say that the public ought to hear, and can say it well enough to command attention, it is his duty to say it; but any one who is anxious to preserve absolutely unspotted his record before his fellows will remember that he is treading on dangerous ground, and mind very carefully his steps, so as to avoid even the appearance of evil,—will take care that his articles show that he has a message to deliver, and is not simply writing for personal aggrandizement.

Courts of justice have afforded some physicians first-rate opportunities for displaying their charms; and, whilst our profession has been honored by the modest knowledge and wisdom of such men as Dr. Ray, it has been no less disgraced by the per-

formances of others. If the published accounts be true, in a neighboring city, not long since, leaders of the profession belittled themselves and their associates by a so-called "public exhibition of anaesthesia;" an exhibition out of which, apparently, could come only one good,—the advertisement of the performers. "As the old cocks crow the young ones learn." The legitimate results of sowing such seed, it seems to us, will be a crop of public performances in surgery, dissections, physiological experimentation, lectures on marriage, health, disease, sexual life,—one and everything that can attract the crowd; performances that have hitherto been considered among the perquisites of abandoned quacks.

Space is wanting for a further discussion of these general points: indeed, such discussion seems unnecessary. It is so evident as to be trite, that there are proper and justifiable—nay, inevitable—methods of indirect advertisement,—advertisement that will largely aid in leading to fortune. Now, it is almost equally evident that these paths are especially open to the favored few who, by ability or culture, are fitted to be leaders, and to those who, by large social, religious, or other influence, can obtain public positions. Taking these assertions as truisms, remembering the qualities of human nature, the deduction is inevitable that, unless great care be exercised, these indirect advertisements will slowly but surely undermine the good feeling and the high tone of our profession. For, if those less favored in obtaining wide-spread publicity are to be content, it can only be by the exercise of the most scrupulous care on the part of the more favored. If the humble Dr. Jones finds that his patients are attracted by the baits and caught in the nets most skilfully spread by the aristocratic Dr. Smith, whose clinics he attends at the public hospitals and under whose presiding he sits at the medical societies, surely under these circumstances Dr. Jones were more than human if he did not conjure his brains to find out some plan by which he too could gather fishes; and, being less favored than Dr. Smith by position and ingenuity, he will probably employ more clumsy, less plausible, less indirect methods of making himself known, and thus the process of deterioration will commence.

We suppose it will not be disputed that the medical profession in Philadelphia has in the past been pre-eminently conservative, pre-eminently high-toned. It is more comfortable to remain in the belief that our good qualities are being handed down from sire to son than to doubt their permanency,—more pleasant, like Mrs. Jellyby, to occupy

ourselves with the short-comings of our neighbors, looking so earnestly at the heathen of Boorioboola-Gha as not to see those at our doors, than to examine closely our own short-comings,—more comfortable and more pleasant, but not always more profitable. It seems to us that the process of deterioration has commenced in Philadelphia; and, as space is apparently wanting to enter fully into this subject, further discussion must be postponed until our next issue.

WE print in another column an account of a death which recently occurred in London during the administration of ether. The phenomena, as detailed, are so peculiar—so different from anything we have ever seen during the administration of ether—that we cannot help suspecting the purity of the ether. Be this as it may, although this single addition to the ether mortality list affords an increase to the latter of many per cent., yet it does not shake our faith at all in the comparative, almost absolute, safety of the Boston anæsthetic. We spoke, in a recent editorial, of the probably great number of unreported cases of fatal chloroform-narcosis, instancing two in this city we knew of: since then, we have been informed of two more, occurring in the practice of a single surgeon.

DR. LEVIS'S operation, which we noticed some weeks since, is apparently a success so far as the aneurism itself is concerned. The tumor has become very hard, and pulsation in it, as in the radial and axillary arteries, has ceased. No local irritation has occurred in or about the aneurism since the operation, nor any inconvenience from arrest of circulation through the subclavian and the axillary, and its diversion to other channels. Pain has been almost entirely relieved. The patient's only inconveniences seem now referable to pressure of the consolidated mass of the aneurism on the upper part of the right lung, impeding its circulation and producing engorgement. As a consequence the patient has been expectorating mucus darkly colored with blood.

ON Wednesday last a week Dr. F. F. Maury cut the brachial plexus in the case of superficial neuroma reported in the last number of *Hays's Journal*. The patient is doing well, but the relief has only reached the lower two-thirds of the affected skin, the remainder evidently being supplied by the cervical nerves.

OUR namesake "*The Medical Times*" (Canada) certainly does honor to us in other ways than by adopting our title. One-third of the number just received, we see, is taken from our columns. The editor of *The Medical Times* is certainly a sensible man,—knows what is valuable and readable.

CORRESPONDENCE.

LONDON LETTER.

[From Our Own Correspondent.]

The Month of Congresses—The British Association for the Advancement of Science—The School of British Physiologists—Their Divergencies—Dr. Rutherford's Address to the Section of Physiology—Dr. Ferrier's Researches in the Functions of the Brain—Revolution in Cerebral Physiology—Confirmation of the Pathological Views of Dr. Ferrier—The Pharmaceutical Conference—The Position of Pharmacists in Great Britain—Their Education, Views, and Political Influence—Their Leaders—Unusual Doses—The Medical Schools.

LONDON, October 3, 1873.

THE months of August and September are essentially "Congress" months in this country. The "season" is over; all London is out of town; and not only all London, but all the inhabitants of great cities, are taking holiday. Hence the peripatetic associations which have become so numerous in this country, and which are becoming hardly less numerous abroad, choose August and September as the most convenient months in which to rally their scattered members. Besides the British Medical Association, we have had the meetings of the British Association (at Bradford), of the Pharmaceutical Conference, and of the Social Science Association at Norwich, at all of which matters of interest to medical readers have come under discussion. The Section of Physiology at the British Association generally produces matters of interest to medical science. It was this year under the presidency of Dr. Rutherford, Professor of Physiology at King's College; and his address was mainly upon the importance of physiology as a preliminary medical study, and as one to which medical science must look for its chief elements of progress in the future. There is, it may be mentioned, a certain party here among our younger physiologists who are rather jealous of the association of physiology with medicine, and who are disposed to divorce it, if possible, from medicine, with the idea of making it assume in universities the dignity of a separate and abstract science. Among these may be mentioned Huxley, Michael Foster, Ray Lankester, and the whole school of physical and zoological physiologists. To these are opposed, in this respect, Sharpey, Burdon-Sanderson, Hughes Bennett, Rutherford, Gamgee, Ferrier, Lauder-Brunton, and others who are actively engaged in the revival of experimental physiology as a favorite and necessary study in our medical schools. There is no question that it had fallen greatly into neglect during the past quarter of a century; and as Virchow pointed out in his address to the British,

Medical Association in August, this was especially surprising and regrettable in the country which had produced in the beginning of the century Hunter, Bell, and Marshall Hall, and had given the signal on the Continent for the vigorous prosecution of physiological research. The revival of such studies was in this country greatly due to the energy of Hughes Bennett. It is from the Edinburgh school that Sharpey, Burdon-Sanderson, Ferrier, Mr. Kendrick, Arthur Gamgee, Rutherford, and Lauder-Brunton have proceeded; Michael Foster is the immediate pupil of Sharpey; and the physiologists named are now all in their turn teachers, and are building up schools of experimental physiology which are already producing apt and able scholars, such as Garrod, Galabris, Galton, and Moseley, —young men of the highest promise, of whose names you will hear more as the years roll on. Dr. Rutherford has an especial right to dwell upon the close connection between experimental physiology and medical study, because he has done more than most others to revive it in this country.

The most interesting topic discussed in the Section of Physiology at Bradford were the remarkable recent researches of Dr. Ferrier, of King's College, on the subject of the Functions of the Brain. These researches, of which the first conclusions were published in the *British Medical Journal* of April 26, and of which a fuller account will be found in the recently published volume of *Transactions of the West Riding Asylum*, have deservedly attracted a very great share of attention from British physiologists. They are, indeed, of so remarkable a character, and will so largely revolutionize our views of cerebral physiology, that the briefly-stated conclusions just published were regarded with considerable incredulity. But as the method employed was more clearly explained, and the experiments were witnessed by competent observers, they were found to be quite trustworthy; and Sharpey, Rutherford, Sanderson, and Brunton have concurred in describing them as the most remarkable and important researches for years prosecuted in the department of cerebral physiology. They have been the subject of leaders in the *Times* and other daily papers; and the effect of the attention directed to the subject has been to set every one reading the *West Riding Reports*, where the full particulars are given. Briefly, Professor Ferrier's method of proceeding has been to remove the skull-cap of living animals under chloroform and to faradize the special convolutions of the brain. The result has been not only to modify our view of the functions of the parts of the brain, but to show a definite localization of function beyond what had been anticipated since the destruction of the so-called phrenological system by the demonstration of its errors of interpretation, and to confirm in a remarkable degree the pathological conclusions at which Dr. Hughlings Jackson has laboriously arrived by a series of clinical and post-mortem investigations which have attracted but too limited attention, but which will assuredly live in the history of medicine as affording data of first-rate im-

portance. I will venture to transcribe from the *London Medical Record* a summary of the more important conclusions of Ferrier, as being the most novel and interesting matters of research at this moment under medical notice:

" 1. The anterior portions of the cerebral hemisphere are the chief centres of voluntary motion and the active outward manifestation of intelligence.

" 2. The individual convolutions are separate and distinct centres; and in certain definite groups of convolutions (to some extent indicated by the researches of Fritsch and Hitzig), and in corresponding regions of non-convoluted brains, are localized the centres for the various movements of the eyelids, the face, the mouth, the ear, the neck, the hand, foot, and tail. Striking differences corresponding with the habits of the animal are to be found in the differentiation of the centres. Thus, the centres for the tail in dogs, the paw in cats, and the lips and mouth in rabbits, are highly differentiated and pronounced.

" 3. The action of the hemispheres is in general crossed; but certain movements of the mouth, tongue, and neck are bilaterally co-ordinated from each cerebral hemisphere.

" 4. The proximate causes of the different epilepsies are, as Dr. Hughlings Jackson supposes, 'discharging lesions' of the different centres in the cerebral hemispheres. The affection may be limited artificially to one muscle, or group of muscles, or may be made to involve all the muscles represented in the cerebral hemispheres, with foaming at the mouth, biting of the tongue, and loss of consciousness. When induced artificially in animals, the affection, as a rule, first invades the muscles most in voluntary use, in striking harmony with the clinical observations of Dr. Hughlings Jackson.

" 5. Chorea is of the same nature as epilepsy, dependent on momentary discharging lesions of the individual cerebral centres. In this respect Dr. Hughlings Jackson's views are again experimentally confirmed.

" 6. The corpora striata have crossed action, and are centres for the muscles of the opposite side of the body. Powerful irritation of one causes rigid pleurosthenos, the flexors predominating over the extensors.

" 7. The optic thalamus, fornix, hippocampus major, and the convolutions grouped around it, have no motor signification.

" 8. The optic lobes or corpora quadrigemina, besides being concerned with vision and the movements of the iris, are centres for the extensor muscles of the head, trunk, and legs. Irritation of these centres causes rigid opisthotonus.

" 9. The cerebellum is the co-ordinating centre for the muscles of the eyeball. Each separate lobule (in rabbits) is a distinct centre for special alterations of the optic axes.

" 10. On the integrity of these centres depends the maintenance of the equilibrium of the body.

" 11. Nystagmus, or oscillation of the eyeballs, is an epileptiform affection of the cerebellar oculo-motorial centres.

"12. These results explain many hitherto obscure symptoms of cerebral disease, and enable us to localize with greater certainty many forms of cerebral lesion."

At the Pharmaceutical Conference a great number of pharmaceutical chemists assembled to discuss points of more or less general interest. The dispensing chemists of this country are now a very numerous and influential body, and their influence is increasing. Since the passing of the Pharmacy Act, no one can sell toxic substances and dispense medicines without passing an examination on the ordinary preliminary subjects of education, including an elementary knowledge of Latin, and subsequent examinations in pharmacy, chemistry, and botany. The "minor" examination is, of course, a barely respectable minimum; but the "major" examination is one of fair stringency, and no really ignorant person, no man not fairly conversant with pharmaceutical knowledge, can enter into business as a chemist. This has necessarily done a good deal to give compactness, unity, and respectability to the trade. It puts it in some respects on a par with professions, and converts it into a monopoly. The trade is subject, in some degree, to government supervision, and the Privy Council has a veto on all regulations affecting the examinations, and nominates a visitor to inspect the examinations. The power of the government over the trade is, however, limited in theory, and in practice still more so, by the parliamentary organization of the pharmacists, and their influence in the legislature, which, like that of all numerous and compact bodies, is, when deftly wielded, considerable. It was the wish of the medical profession and of the leading pharmacists that the druggists should all adopt some sort of mechanical precaution to prevent the frequent recurrence of accidental poisoning. There was, indeed, an understanding with the government when the Pharmacy Act was passed that the Pharmaceutical Society, which is the controlling body among the pharmacists, would impose the use of "fluted bottles" in dispensing lotions and poisonous medicines, as a rule obligatory on all dispensing chemists. The council issued rules accordingly, but they were overthrown by the popular vote; and when the government subsequently introduced a supplementary bill into Parliament to enforce such a rule it was met with so much opposition that it was quietly dropped. I mention this short history to illustrate the strong position which English pharmacists now hold. On the whole, it must be said that they use it well. Counter-practice and irregular prescribing prevail to a considerable extent in the poorer neighborhoods and in country places, but are discouraged by the leaders in the trade, and, in theory, are always reprobated as they should be. Practically, among the poorer classes it is difficult to put a stop to them. They cannot well afford to pay medical fees for advice as well as for medicines; and possibly the sort of advice and medicine they get at the druggist's shop (or, as they call it, the doctor's shop) for a few pence meets their necessities and the hard conditions imposed by their poverty better than any other would do which can at present be devised.

The leading pharmacists here are J. Hyde Hills, W. Sandford, Carteighe, Morson, Savory, etc. They are public-spirited and able men. Mr. Hills holds an exceptionally good position as the personal friend of many of the leading physicians and surgeons of the day, and is a thoroughly trustworthy and honorable man. Mr. Sandford is the orator of the company, and varies in his addresses from the sublime to the ridiculous. He is hot-tempered and wrong-headed, and lately led an ill-advised opposition to the admission of women to the Pharmaceutical Society, which has brought the society into some discredit. But it would be difficult to find any society of retail shop-keepers who conduct their affairs, on the whole, with more dignity and public spirit than the druggists of Great Britain.

The recent condemnation of a druggist for refusing to dispense an (intentionally) large dose of digitalis prescribed for a patient in delirium tremens has led to much discussion, the patient having died, and the druggist being censured by a coroner's jury. This case was considered at the conference, and a resolution was passed asking medical men when they prescribe unusual doses always to initial the dose, in order to indicate intention, and in all cases to sign their prescriptions with their full name instead of their initials. The object of the latter request is to enable the dispenser to communicate with the prescriber privately when he has any doubt, or when he believes that a *lapsus calami* has occurred.

While I write, the introductory lectures are being delivered at the medical schools, and the schools are re-opening for the winter session. They will, no doubt, furnish material for my next letter.

NOTE ON LANCING THE GUMS IN DIFFICULT DENTITION.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES.

DEAR SIR,—The excellent communication of Dr. James W. White upon Pathological Dentition, and the valuable extract from an incisive article of Dr. J. Foster Flagg's, have brought the subject of cutting the gums in children whilst teething so prominently before your readers that I think perhaps an incident from my own experience may be interesting enough to warrant its publication in your columns. From the circumstance that the little patients in these cases are generally too young to appreciate our efforts for the mitigation of their sufferings by the aid of the gum lancet, any subjective facts in favor of operations of this character must necessarily be rare, or at least difficult to collect; but, as a nucleus for the aggregation of such testimony, permit me to report the following.

My youngest child, a little girl, commenced to teeth after attaining the age of one year, and suffered severely during the process, often obtaining apparent relief, however, from free incisions into the tense and swollen gums. On one of the latter of these occasions, when she was about twenty-six months old, I found, on re-

turning near midnight from a late visit, that she had been awake and fretful most of the evening, complaining at short intervals of her teeth. Upon my entering the chamber, she at once (to the profound surprise of her mother and astonishment of the nurse) cried out, as well as she could between her sobs, "Papa, lance 'em! papa, lance 'em!" and bravely held open her mouth for the operation. When performed, this was followed, as the poor child had learned to expect, by such prompt and complete ease that she soon sank into a quiet slumber, which continued until morning, forming a marked contrast—most agreeable for all concerned—to the distressed restlessness she displayed up to the moment of incising her gums.

Very respectfully yours, etc.,

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GLEANINGS FROM OUR EXCHANGES.

DEATH FROM THE INHALATION OF ETHER.—We have this week to make the sad announcement of a death from the inhalation of ether. It occurred at the Royal South Hants Infirmary. We shall be glad of the comment of Dr. Morgan and of our Boston contemporaries. David Newman, aged 14, a strumous lad, who had suffered from repeated attacks of corneitis, was admitted an in-patient of the above institution on September 25, 1873, under the care of Dr. Lake. On Wednesday, October 1, he was brought into the operating-room in order that iridectomy might be performed. When on the table he exhibited considerable alarm, and required some persuasion before he was induced to lie down. Dr. Griffin having taken charge of the pulse, half an ounce of ether was poured on a sponge contained in a cone of spongio-piline, and the latter was closely applied to the mouth and nose. After a few minutes' inhalation, the ether being nearly exhausted, three drachms more were poured on the sponge. Shortly after commencing to inhale this second quantity he began to struggle violently, getting at length into a state bordering on opisthotonus, his face becoming intensely scarlet. Dr. Griffin then announced that his pulse, which up to this time had been perfectly natural, had become very feeble. The ether was at once discontinued, when, the pulse having improved, Dr. Lake operated, no more ether being administered. At the close of the operation, which occupied only a few seconds in its performance, and before the eye could be bandaged, the pulse became imperceptible, the breathing was suspended, and the countenance livid. The tongue was drawn well out of the mouth and held there, the calves of the legs were vigorously flagellated, and the chest freely slapped with a wet towel. The effect of these measures was to cause the patient to respire freely, to cry out lustily, and to kick about on the table; but this improvement did not last long,—probably about a minute. The pulse at the wrist did not return, and the breathing again stopped. Artificial respiration—at first by Silvester's method, afterwards by Marshall Hall's—was then had recourse to; at the same time an intermittent current of faradic electricity was passed in the course of the phrenic nerve; this at first caused strong periodic contractions of the respiratory muscles; but after about ten minutes or a quarter of an hour these ceased to respond to the current, and it became evident that life was extinct. These measures were, however,

still persevered with for about three-quarters of an hour. At the necropsy, twenty-one hours afterwards, the brain was found to be healthy, and not much congested. The right cavities of the heart were full of dark fluid blood, but the left cavities contained only about a drachm of a similar fluid. The valves were healthy. The muscular structure, although somewhat flabby, presented no decided evidence of fatty degeneration. The lungs were congested, and of a somewhat bright red color. The other organs were healthy.—*British Medical Journal*.

DILATATION OF THE CERVIX UTERI IN DYSMENORRHœA (*New York Medical Journal*, October, 1873).—Dr. John Ball recommends the following method of procedure in cases of constricted cervix uteri. Having procured the thorough evacuation of the bowels of the patient, place her upon her back, with the hips near the edge of the bed, and when she is profoundly anaesthetized introduce a three-bladed, self-retaining speculum; seize the os uteri with a double-hooked tenaculum, draw it down towards the vulva, and then introduce a metal bougie as large as the canal will admit, following it in rapid succession by others of larger size, until one is reached which represents the size of the dilator. Then insert the dilator and stretch the cervix in every direction until it is enlarged sufficiently to admit a No. 16 bougie, which is all that is generally necessary. Then introduce a hollow gum-elastic uterine pessary of about that size, and retain it in position, by a stem secured outside the vulva, for about a week, in which time it has done its work and is ready to be removed. During this time the patient should be kept perfectly quiet, and usually upon her back. Dr. Ball claims that the operation saves a great deal of time, causes much less constitutional disturbance than the use of tents, and is not only safer than the metrotome, but is free from some serious objections to the use of the latter, there being no resulting cicatrix to interfere with the dilatation of the parts, and the condition of the patient after an unsuccessful operation being no worse than before. He says that it relieves the constriction entirely, by breaking up all the adhesions, which are often firm and unyielding; that, acting as a derivative, it cures the hyperæmia of the cervix; and that, further, it establishes a radical change in the nutrition of the whole organ.

He details nine cases of stricture of the os and cervix complicated with vaginismus, chronic endo-cervicitis, version, sterility, dysmenorrhœa, etc., in all of which very great relief or permanent restoration to health was effected by rapid and forcible dilatation. In a foot-note the editor of the *New York Medical Journal* quotes Dr. Ellinger, of Stuttgart, as recommending the operation,—1, in stricture of the cervical canal; 2, stenosis due to flexions; 3, metrorrhagia in a flabby, swollen uterus, but without new growths; 4, retained catarrhal secretions; 5, for exploration of the uterine cavity; 6, replacement of a flexed uterus; 7, sterility. Dr. Ellinger declares that he has never had reason to regret rapid dilatation, and urges it, where dilatation is justifiable at all, to the exclusion of all other methods.

THE CAUSES OF DEATH AFTER SEVERE SUPERFICIAL BURNS.—This question is discussed at considerable length by Dr. Mendel, of Paukow, in the *Vierteljahrssch. für ger. u. off. Med.* (xiii. 1). It is a familiar fact that a superficial burn involving more than one-half of the surface of the body is pretty sure to be fatal, while death may be expected in a majority of cases where only one-third of the body is burnt. Death may ensue at three different stages of the wound,—the periods of irritation, inflammation, and suppuration,—and at each different stage the mode of death is different.

1. Causes of Death in the Period of Irritation.

a. Paralysis of the Central Nervous System.—This is probably the result of the shock experienced by the nervous system at the time of the reception of the burn. It is of brief duration, and often passes unnoticed.

b. Congestion of the Internal Organs.—Immediately after the accident, a reaction, more or less violent, takes place, characterized by congestion of the encephalon and its membranes, of the lungs and pleura, and also of the alimentary canal and peritoneum, accompanied often by sanguineous exudations upon the lungs and heart.

2. Causes of Death in the Stage of Inflammation.—These are the internal inflammations induced by the cutaneous inflammation, and having their seat, commonly, in that organ situated the nearest to the burn. Meningitis and encephalitis are relatively rare; pneumonia is much more frequent, as are also pleurisy and pericarditis. Gastro-intestinal inflammation is an unusual accompaniment, and, when it occurs, its seat is usually in the duodenum. Another lesion, noticed almost invariably in the duodenum, is *ulceration*, analogous to the round ulcer found in the stomach. This may advance to perforation, and thus induce peritonitis, or the destruction of a vessel may take place, and death may then result from hemorrhage. To account for the peculiar localization of this lesion, we are forced to resort to various hypotheses; some pathologists connecting it with the situation of Brunner's glands, others ascribing the ulceration to embolism, and others still to some chemical change in the constituents of the bile. In some instances, tetanus has been observed in this stage of a burn.

3. Causes of Death in the Stage of Suppuration.—These are exhaustion, pyæmia, septicæmia, renal disturbance accompanied by anasarca, and intestinal hemorrhages.

Death has been known to take place suddenly, without any appreciable cause, even after complete cicatrization of the wound had taken place.—*Boston Medical and Surgical Journal.*

MISCELLANY.

DR. NÉLATON, who has just died, lingered for several weeks, and suffered a good deal. He knew of his condition during this time, and often repeated the remark, "Death is long in coming." During the few days before his death he received three letters from the ex-Empress and her son, dated at Chiselhurst, and he read each of them several times. The last letter of the Empress contained the following postscript: "I reopen my letter to tell you that the Prince, before leaving for Woolwich, begged to be remembered to you." The night before his death he said to his son, "Do as much good as you can in life,—above all, without noise." The first phrase in his will is thus written: "I desire that my wife shall bring up my son to respect religion, honor, and work." His codicil expressly requested that no discourse should be pronounced over his tomb, and that the funeral should be as simple as possible. By taste, and somewhat through vanity, he avoided a display of instruments in his operations: he called it "surgery with a big orchestra." He had a small, dry hand, with pointed fingers and a long thumb: this hand was his principal instrument. His coolness equalled

his dexterity. "When you have a correct diagnosis, you know where you are going, and you don't risk anything," said he. One day, after homœopathy had secured a foothold in France, a doctor of that school, rubbing his hands with exultation, said to Nélaton, "You see, we are gaining ground every day." "Yes,—in the cemeteries," added he. The Emperor said to him, when he cured his son in 1867, "I thank you, Monsieur Nélaton; you have saved my son." "I am glad of it, sire," was his answer, "for I have at the same time saved my reputation." Dupuytren, the greatest genius in the science of surgery of modern times, was his master. The pupil did not equal the master, but he had a greater number of clients among distinguished people. He was a hard worker, and gifted with a rare intelligence. He possessed, too, a certain talent for elocution which tempted him to compete for the professorship of the surgical clinic. He failed the first time, in 1850, but the second time, in 1851, he won, and the occasion was memorable on account of the number and character of his competitors. The faculty of the college had reason to congratulate itself on having attached him to the institution. His teaching was brilliant, and he drew around him a numerous following of studious young men. His successes in the hospital, the certainty and the precision of his diagnosis, his sure judgment and astonishing dexterity, all joined to much gentleness of manner towards patients, soon created for him a great reputation. He became the surgeon of Louis Napoleon; extracted the ball from Garibaldi,—the story of which is now legendary,—and honors reached him from all sides. Clients came to him in such numbers that he was obliged to give up his professorship. Soon after he was made Senator and Grand Officer of the Legion of Honor; Royer, Michel Lévy, and Ricord being the only other physicians who have received this honorable distinction. Science is indebted to him for some modifications in operating. He has given his name to a process for setting the shoulder, and another for the elbow, also to one called the *taille de Nélaton*. The rigors of the siege of Paris contributed to his death, and he finally succumbed to an organic disease of the heart from which he had long suffered.—*Paris Letter to New York Tribune.*

TO RESTORE COLOR TO FABRICS.—When color on a fabric has been accidentally or otherwise destroyed by acid, ammonia is applied to neutralize the same, after which an application of chloroform will, in almost all cases, restore the original color. The application of ammonia is common, but that of chloroform is little known. Chloroform will also remove paint from a garment, or elsewhere, when benzole or bisulphide of carbon fails.—*American Artisan.*

THE student who was asked the use of starch in germination, and who replied that, "In the German nation, as elsewhere, starch is used for doing up linen and similar laundry purposes," intends to take an extra course of botany during summer vacation.—*Boston Journal of Chemistry.*

PATRONESSES OF QUACKERY.—Since the days of St. John Long, when duchesses entered the witness-box to depose to the marvellous effects of that impostor's liniment, there has always been an irresistible attraction for the ladies of the upper ten thousand in any delicate bit of quackery. Globules are *distingué*. There is none of the grossness or materialistic appearance which belongs to an apothecary's bottle,—globules and dilutions being to medicine what the fragrance of an herb is to its medical potency. It is interesting to be in delicate health, and under homeopathic guidance that ladylike characteristic may be indulged without the discomforts of nasty bottles. Accordingly, the *crème de la crème* are, at least, professing homeopaths; and we observe from the prospectus of a Homeopathic Bazaar that titled patronesses are neither scarce nor undistinguished. H.R.H. the Duchess of Cambridge leads off, supported by five other duchesses. Five marchionesses follow, among whom are especially notable the Marchioness of Westminster and the Marquise de Caux (Madame Adelina Patti). Next we have ten countesses and nine viscountesses, the Countess Granville leading this division. Then we find about fifty "ladies" or "baronesses," including such names as Ebury, Elcho, Lawrence, Rothschild, Seymour, Havelock, Erskine, etc. The mere honorable and untitled ladies who bring up the rear are grand enough to shed lustre on any ordinary cause, including as they do such names as Mrs. Milner Gibson, Mrs. Knatchbull-Hugessen, and others whose husbands' names are linked with wealth, talent, or fashion.—*Dublin Medical Press and Circular*.

OPIUM-LAND pays a price in Malwa unknown in any other part of India. Meadow-land about a market town in England is scarcely more remunerative to landlords than thousands of square miles blooming with the poppy are to the chiefs of Malwa.—*The Clinic*.

WHY is a tom-cat like a surgeon? Because they both mew-till-late.

THE following may be regarded as representing tolerably accurately the number of new students at the metropolitan medical schools this year: St. Bartholomew's, 105; Guy's, 90; University College, 83; St. Thomas's, 55; King's College, 40; Middlesex, 38; St. George's, 37; London, 32; St. Mary's, 21; Charing-Cross, 15; and Westminster, 10.—*London Lancet*.

CHAUTAUQUA COUNTY MEDICAL SOCIETY, NEW YORK.—At the annual meeting held at Dunkirk, N.Y., July 8, 1873, the following officers were elected for the ensuing year: President, Dr. A. Waterhouse, Jamestown, N.Y.; Vice-President, Dr. S. M. Smith, Dunkirk, N.Y.; Secretary and Treasurer, Dr. T. Charles Wilson, Portland, N.Y.

As illustrating the adroitness of many lunatics in concealing their illusions, it is related that the French novelist Balzac once became so much interested in a man whom he believed to be unjustly confined in an asylum as to carry the case before the courts and obtain a decree for his liberation. On the day of his release he invited

the man to breakfast with himself and a few friends. The invitation was so stoutly declined that Balzac demanded the reason, and at last extorted from the poor fellow that it was impossible for him to appear except at night, because he was the moon.—*Cincinnati Lancet and Observer*.

PRECOCIOUS DENTITION.—We read in *L'Union Médicale du Canada*, October, "Dr. C. M. Filiatral, of this city (Montreal), informs us that during the past month he attended the accouchement of a woman who brought into the world a child whose two inferior incisors were pierced through at the moment of birth. It was a masculine child, and well formed. It is known that Louis XIV. was also provided with two teeth at the time of birth."—*Canada Medical Times*.

THE death of Sir Henry Holland is announced by telegraph in the daily papers.

RETURN OF DEATHS AND INTERMENTS IN PHILADELPHIA FROM SEPTEMBER 28 TO NOVEMBER 1, 1873.

DISEASES.	Adults.		DISEASES.		Adults.	Minors.
		Minors.				
Abscess.....	9	1	Fever, Scarlet.....	1	8	
Albuminuria.....	2	..	" Typhoid.....	26	14	
Anæmia	1	..	" Typhus.....	4	1	
Aneurism of the Aorta.....	1	..	Fracture of the Skull.....	2	..	
Apoplexy.....	30	2	" " Thigh.....	1	..	
Apxhixia.....	..	1	Gangrene.....	1	..	
Asthma.....	1	..	Hemorrhage.....	2	6	
Burns and Scalds.....	..	7	" Lungs.....	1	..	
Cancer.....	7	..	" Stomach.....	1	..	
" of Breast.....	1	..	Hernia	1	..	
" Liver.....	1	..	Hooping-Cough.....	..	4	
" Stomach.....	5	..	Inanition.....	2	19	
" Uterus.....	4	..	Inflammation of Brain.....	7	20	
Caries of the Spine.....	1	..	" Bladder.....	7	1	
Casualties.....	18	9	" Bronchi....	6	5	
Cerebro-Spinal Meningitis.....	5	6	" Eye.....	1	..	
Cholera Infarctum.....	23	2	" Heart.....	2	..	
" Morbus.....	1	..	" Kidneys.....	1	..	
Cirrhosis of Liver.....	13	1	" Larynx.....	1	3	
Compression of Brain.....	1	1	" Liver.....	6	1	
Consumption of Bowels.....	1	..	" Lungs.....	23	23	
" Lungs.....	199	21	" Peritoneum.....	1	2	
Congestion of Bowels.....	..	1	" Spine.....	13	1	
" " Brain.....	16	19	" Stomach & Bowels.....	16	14	
" " Liver.....	1	1	" Uterus.....	1	..	
" " Lungs.....	11	5	" Veins.....	1	1	
Convulsions.....	2	53	Intemperance.....	6	..	
Cramps.....	..	1	Intussusception.....	2	..	
Croup.....	..	17	Jaundice.....	2	..	
Cyanosis.....	..	6	Leucocytæmia.....	2	..	
Debility.....	35	49	Mania a potu.....	3	..	
Degeneration of Kidneys.....	1	..	Marasmus.....	2	57	
" Liver.....	1	..	Measles.....	2	1	
Diarrhoea.....	13	5	Murder.....	..	1	
Diphtheria.....	..	11	Necrosis.....	1	..	
Disease of Brain.....	2	..	Neuralgia of the Heart.....	3	..	
" Heart.....	2	..	Obstruction of Bowels.....	2	..	
" Kidneys.....	12	7	Old Age.....	51	..	
" Liver.....	2	..	Paralysis.....	18	..	
" Lungs.....	1	..	Pyæmia.....	4	..	
" Spine.....	1	..	Rheumatism.....	1	..	
" Stomach.....	1	..	Scrofula.....	1	2	
" Uterus.....	1	..	Septicæmia.....	1	..	
Dropsy.....	21	7	Softening of Brain.....	7	..	
" of Abdomen.....	6	..	Still-Born.....	79	..	
" Brain.....	1	11	Stricture of Oesophagus.....	1	..	
" Chest.....	2	..	Suffocation.....	..	1	
" Heart.....	3	..	Suicide.....	4	..	
" Lungs.....	1	..	Syphilis.....	2	1	
" Ovaries.....	2	..	Tabs Mesenterica.....	..	1	
Diabetes.....	2	..	Teething.....	5	..	
Drowned.....	8	4	Tetanus.....	1	2	
Dysentery.....	7	..	Tumors.....	7	..	
Effusion on Brain.....	..	1	Thrombosis.....	1	..	
Epilepsy.....	6	..	Ulceration of Bowels.....	1	..	
Erysipelas.....	3	..	" Lungs.....	1	..	
Fatty Degener'n of Heart.....	2	..	Unknown.....	5	3	
" Liver.....	1	..	Uræmia.....	1	..	
Fever, Catarrhal.....	..	3	Wounds, Gunshot.....	2	1	
" Intermittent.....	1	..				
" Puerperal.....	2	..				
	TOTALS.....			750	555	